

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Elazer R. Edelman, Aruna Nathan and Matthew A. Nugent

Serial No.: 08/458,978

Art Unit: 1808

Filed: June 2, 1995

Examiner: D. Naff

For: Inhibition of Vascular Occlusion Following Intervention

RECEIVED

OCT 21 1997

Assistant Commissioner
for Patents
Washington, D.C. 20231

DATA CUSTOMER
SERVICE CENTER

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Further to the Information Disclosure Statement mailed in the above-identified application on April 28, 1997, enclosed are copies of Form PTO 1449 and the publications which were not available at the time of mailing.

Applicants do not believe that any additional fee is necessary with the filing of these publications. However, the Assistant Commissioner is authorized to charge any fee to Deposit Account No. 01-2507, if any further charge is required.

Not Considered

11/12/1997 STNRNTD 00000049 DAB:012507 08458978
01 FC:126 240.00 CH

#8
H.G.J.
11/8/97

Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Country</u>
WO 93 02188	02/04/93	PCT
WO 93 14193	07/22/93	PCT
EP 0518389	12/16/92	EPO

Publications

Centra, M., et al., "Culture of Bovine Pulmonary Artery Endothelial Cells on Gelfoam Blocks," FASEB J., 6:3117-3121 (1992).

Clowes, A. et al., "Kinetics of Cellular Proliferation After Arterial Injury I: Smooth Muscle Growth in the Absence of Endothelium," Lab. Invest., 49:327-333 (1983)

Conte, M., et al., "Endothelial Cell Seeding Fails to Attenuate Intimal Thickening in Balloon Injured Rabbit Arteries," Journal of Vascular Surgery, 21(3):413-421 (March, 1995)

Edelman, et al., "Effect of Controlled Adventitial Heparin Delivery on Smooth Muscle Cell Proliferation Following Endothelial Injury," Proc. Natl. Acad. Sci. (USA), 87:3773-3777 (1990)

Esko, J., "Animal Cell Mutants Defective in Heparan Sulfate Polymerization," Heparin and Related Polysaccharides, (Lane, Bjork, & Lindahl, Eds.) Plenum Press, pp 97-106 (1992)

Lee, Y., et al., "Endothelial Cell Seeding Onto the Extracellular Matrix of Fibroblasts for the Development of a Small Diameter Polyurethane Vessel," ASAIO Journal, 39(3):M7450M745 (July, 1993)

Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the

subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



Patrea L. Pabst
Reg. No. 31,284

Dated: October 20, 1997
ARNALL GOLDEN & GREGORY, LLP
2800 One Atlantic Center
1201 W. Peachtree Street
Atlanta, Georgia 30309-3450
(404) 873-8794

FORM PTO-1449U.S.		DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MIT 6584		SERIAL NO. 08/458,978	
MATERIAL INFORMATION SHEET (Use several sheets if necessary)				APPLICANT Edelman, Nathan, and Nugent			
				FILING DATE June 2, 1995		GROUP 1808	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	AA	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AL	WO 93 02188	02/04/93	PCT			
	AM	WO 93 14193	07/22/93	PCT			
	AN	EP 0518389	12/16/92	EPO			
	AO						
	AP						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Inc.)							
	AR						
	AS						
	AT						
EXAMINER				DATE CONSIDERED			
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant</small>							

FORM PTO-1449U.S.		DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MIT 6584	SERIAL NO. 08/458,978
MATERIAL INFORMATION SHEET (Use several sheets if necessary)				APPLICANT Edelman, Nathan and Nugent	
				FILING DATE June 2, 1995	
				GROUP 1808	
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Inc.)					
	AR	Bjornsson et al., "Acidic Fibroblast Growth Factor Promotes Vascular Repair," <i>Proc. Natl. Acad. Sci. USA</i> , 88: 8651-8655 (1991)			
	AS	Castellot et al., "Cultured Endothelial Cells Produce a Heparinlike Inhibitor of Smooth Muscle Cell Growth," <i>J. Cell Biol.</i> , 90: 372-9 (1981)			
	AT	Centra, M., et al., "Culture of Bovine Pulmonary Artery Endothelial Cells on Gelfoam Blocks," <i>FASEB J.</i> , 6:3117-3121 (1992)			
	AR	Clowes, A. et al., "Kinetics of Cellular Proliferation After Arterial Injury I: Smooth Muscle Growth in the Absence of Endothelium," <i>Lab. Invest.</i> , 49:327-333 (1983)			
	AS	Conte, M., et al., "Endothelial Cell Seeding Fails to Attenuate Intimal Thickening in Balloon Injured Rabbit Arteries," <i>Journal of Vascular Surgery</i> , 21(3):413-421 (March, 1995)			
	AT	Cooke et al., "Cellular Mechanisms of Atherogenesis and the Effects of Nitric Oxide," <i>Curr. Opin. Cardiol.</i> , 7: 799-804 (1992)			
	AR	Edelman, et al., "Effect of Controlled Adventitial Heparin Delivery on Smooth Muscle Cell Proliferation Following Endothelial Injury," <i>Proc. Natl. Acad. Sci. (USA)</i> , 87:3773-3777 (1990)			
	AS	Edelman, E.R. & Karnovsky, M.J. "Contrasting Effects of the Intermittent and Continuous Administration of heparin in Experimental Restenosis," <i>Circ.</i> 89: 770-776 (1994)			
	AT	Edelman, et al., "Basic Fibroblast Growth Factor Enhances the Coupling of Intimal Hyperplasia and Proliferation of Vasa Vasorum in Injured Rat Arteries," <i>J. Clin. Invest.</i> 89:465-471 (1992)			
	AR	Ellis et al., "Effect of 18- to 24-hour Heparin Administration for Prevention of Restenosis After Uncomplicated Coronary Angioplasty," <i>Am. Heart. J.</i> , 117: 777-782 (1989)			
	AS	Esko, J., "Animal Cell Mutants Defective in Heparan Sulfate Polymerization," <i>Heparin and Related Polysaccharides</i> , (Lane, Bjork, & Lindahl, Eds.) Plenum Press, pp 97-106 (1992)			
	AT	Farndale, et al., "Improved Quantitation and Discrimination of Sulphated Glycosaminoglycans by Use of Dimethylmethylene Blue," <i>Biochimica et Biophysica Acta</i> 883:173-177 (1986)			
	AR	Fishman et al., "Endothelial Regeneration in the Rat Carotid Artery and the Significance of Endothelial Denudation in the Pathogenesis of Myointimal Thickening," <i>Lab. Invest.</i> , 52: 339-51 (1975)			
	AS	Gimbrone, M., "Culture of Vascular Endothelium," <i>Progress Hemostasis and Thrombosis</i> 3:1-28 (1976)			
	AT	Lee, Y., et al., "Endothelial Cell Seeding Onto the Extracellular Matrix of Fibroblasts for the Development of a Small Diameter Polyurethane Vessel," <i>ASAIO Journal</i> , 39(3):M745OM745 (July, 1993)			
EXAMINER				DATE CONSIDERED	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant					

FORM PTO-1449U.S.		DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MIT 6584		SERIAL NO. 08/458,978	
MATERIAL INFORMATION SHEET (Use several sheets if necessary)				APPLICANT Edelman, Nathan and Nugent			
				FILING DATE June 2, 1995		GROUP 1808	
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Inc.)							
	AR	McNamara, et al., "L-Arginine Inhibits Balloon Catheter-Induced Intimal Hyperplasia," <i>Biochem. Biophys. Res. Comm.</i> , 193: 291-296 (1993)					
	AS	Moncada et al., "The L-Arginine-Nitric Oxide Pathway," <i>N. Engl. J. Med.</i> , 329: 2002-2012 (1993)					
	AT	Nugent et al., "Vascular Cell-Derived Heparan Sulfate Shows Coupled Inhibition of Basic Fibroblast Growth Factor Binding and Mitogenesis in Vascular Smooth Muscle Cells," <i>Circulation Research</i> , 73: 1051-1060 (1993)					
	AR	Schwartz et al., "The Aortic Intima. II. Repair of the Aortic Lining After Mechanical Denudation," <i>Am. J. Pathol.</i> , 81: 15-42 (1975)					
	AS	<div style="text-align: center; font-size: 2em; transform: rotate(-15deg);"> NOT CONSIDERED </div>					
	AT						
	AR						
	AS						
	AT						
	AR						
	AS						
	AT						
	AR						
	AS						
	AT						
EXAMINER				DATE CONSIDERED			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant							